

## ANDON キャンペーンで観測された大気重力波：大気光イメージャ、流星レーダー、ナトリウムライダーによる同時観測

# 鈴木 臣 [1]; 中村 卓司 [1]; 江尻 省 [1]; 堤 雅基 [1]; 塩川 和夫 [2]; 川原 琢也 [3]  
[1] 極地研; [2] 名大 STE 研; [3] 信州大・工

### Mesospheric gravity waves in the ANDON campaign: Coordinated measurements with airglow imagers, meteor radar, and sodium lidar

# Shin Suzuki[1]; Takuji Nakamura[1]; Mitsumu Ejiri[1]; Masaki Tsutsumi[1]; Kazuo Shiokawa[2]; Takuya Kawahara[3]  
[1] NIPR; [2] STELAB, Nagoya Univ.; [3] Faculty of Eng., Shinshu Univ.

During the ANDON campaign we have conducted simultaneous observations of mesospheric gravity waves over Kansai area by multiple instruments. Two airglow imagers were used in this campaign to observe two-dimensional structure of gravity waves: one has been operated by Nagoya university as a part of the optical mesosphere thermosphere imagers (OMTIS) at the MU observatory in Shigaraki (34.9°N, 136.1°E), and the other imager, named ANDON, is newly developed by Kyoto University and installed at the DYNIC Astropark Observatory in Tago (35.2°N, 136.3°E). Since the fields-of-view of the two imager overlap in a certain area, airglow layer heights in the mesopause region can be determined by triangulation method. Winds and temperature in the mesosphere and lower thermosphere (MLT) region are simultaneously obtained from meteor-mode observations of the MU radar at Shigaraki and the sodium lidar observations at Uji (34.9°N, 135.8°E), respectively. On 2 October 2008, gravity waves with a horizontal wavelength of 180 km and wave period of 1 h propagating northeastward at 50 m/s were observed in the airglow keograms. Simultaneously, similar wave structures were also found in the time-series of the meteor wind and lidar temperature.

In this presentation, we will discuss the details of the observed gravity waves, such as propagation directions and phase relations.